



Universal Heating Controller

'The cost effective heating controller'

Chalmor's Universal Heating Controller is a simple to use powerful low cost heating control solution designed to offer the energy saving features of Building Management Systems (BMS) but at a justifiable price for medium and smaller buildings.



Research carried out by the Building Research Establishment (BRE) into end use carbon emissions in the UK's non domestic buildings, concluded that 46% of emissions came through heating, and 4% through hot water. That equates to 50% of all emissions! Add the ever increasing pressures on businesses to reduce carbon, buildings needing to become more efficient and escalating energy costs, businesses require cost effective solutions.

Chalmor has specifically developed the Universal Heating Controller to provide an "all in one" control solution. The Universal Heating Controller can be utilised within new heating schemes as well as a cost effective up grade option for retrofitting to existing systems. The controller is also very flexible and can control most types of heating including: electric, warm air, and wet heating systems as shown in the diagram over leaf.

"Chalmor assists SME's to obtain interest free Carbon Trust loans"

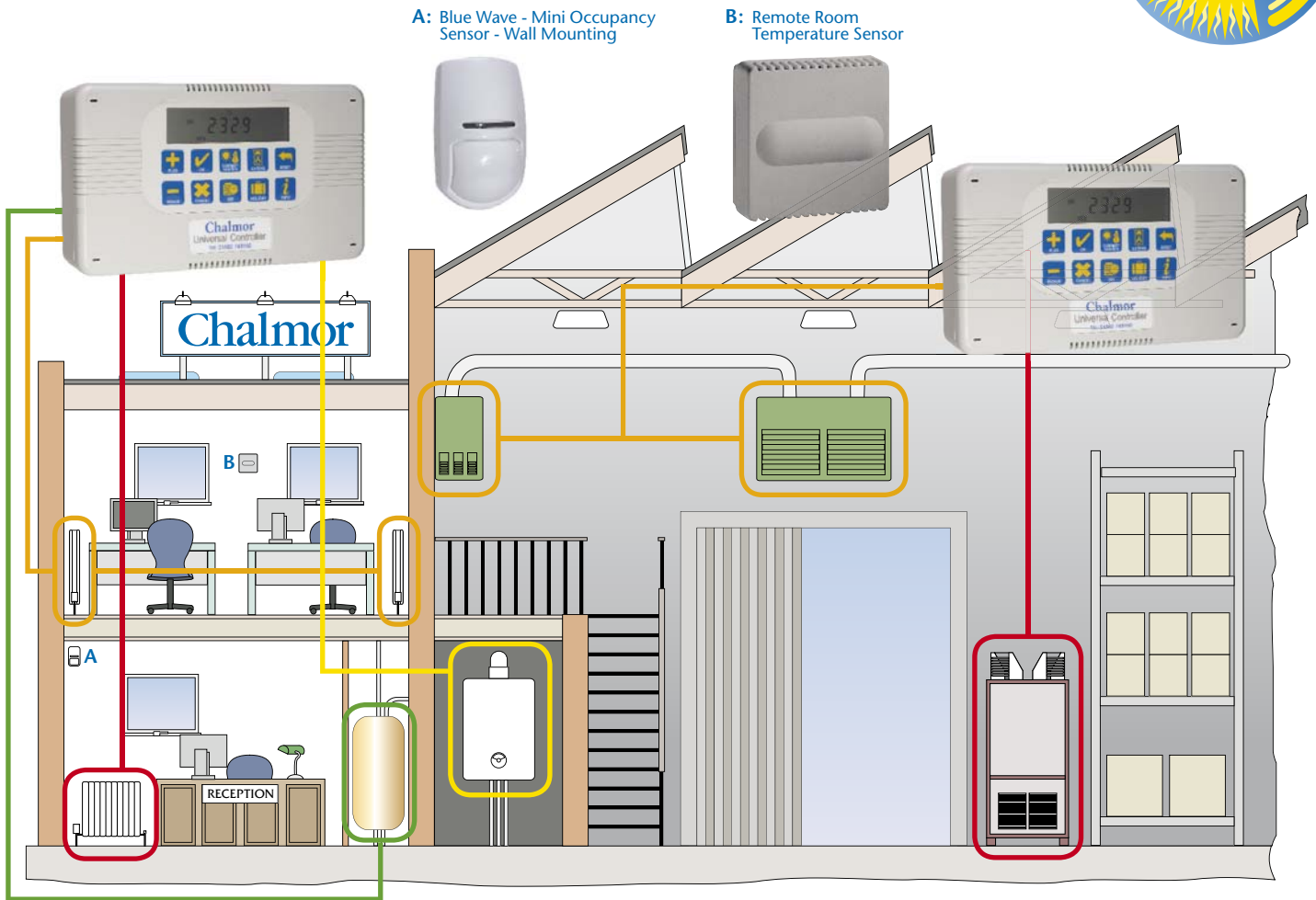
The Universal Heating Controller's Energy saving features include:

- Intelligent boiler control with load scheduling to maximise efficiency through adjusting boiler firing pattern to suit load conditions and eliminate "dry cycling"
- Self adaptive optimum start and stop facility for 2 heating zones that will automatically adjust switch on and off times in accordance with prevailing conditions, for example speed of plant response and the building temperature characteristics
- Weather compensation for wet heating systems to automatically adjust temperatures for improved comfort and energy saving by direct boiler control or with the option to control a mixing valve
- Single or dual zone heating control with independent time and temperature control for each zone – 3 on/off's per day per zone
- Independent domestic hot water time and temperature control with facility for hot water "boost" to combat legionella
- Hours run monitoring facility to record boiler run times that can be used as a savings monitor as well as a "service" alert that shows when heating maintenance due
- Occupancy option to automatically reduce heating in areas that are vacated. Suitable for electric heating systems only and requires a PIR sensor per zone

FEATURES

- Advanced features in an easy to use low cost "all in one" controller
- Self adaptive optimum start and stop control for 2 heating zones
- Weather compensation
- Boiler load economy routine
- Single/dual heating zones or hot water systems
- Occupancy set back mode for electric, radiant and warm air heating
- Hot Water Boost to combat legionella
- Suitable for electric, warm air and wet heating systems
- Tamperproof – all programme settings are password protected
- Battery back up to ensure programmes are preserved in the event of a mains failure
- Easy to set intuitive programme
- Up to 6 Temperature Sensors for external, boiler flow, boiler return, hot water and 2 room sensors. Or PIR sensors for electric heating systems
- Mixing valve control option (0–10v output)
- 7 Relay outputs for boiler, hot water, secondary pump, Zone 1 heating, Zone 2 heating, Pump & mid position valve control
- Multi stage frost protection on both low external and system flow temperatures
- Summer/Winter function to change from WINTER (heating and hot water) to SUMMER (hot water only) operation
- Clear informative display with temperature and controller status indication.

UNIVERSAL HEATING CONTROLLER



A: Blue Wave - Mini Occupancy Sensor - Wall Mounting

B: Remote Room Temperature Sensor

TECHNICAL SPECIFICATION

- Controller:Pale grey ABS
 Dimensions:216(l) x 124(w) x 62(d) mm
 Sensors temperature range:External/Internal -5°C – 35°C;
 Flow sensor 0 – 100°C
 Relay outputs: Relay 1-2 are rated: 16A/240Vac resistive - 6A/240Vac inductive - 550W motor load
Total maximum load for relays 1 and 2 is 12A.
 Relays 3 - 7 are rated: 10A/240Vac resistive - 4A/240Vac inductive - 370W motor load
Maximum load for each of relays 3 and 4 is 6A.
Total maximum load for relays 5 to 7 is 12A.
 Where the plant has a higher rating, it is recommended that the relays are used to operate suitably rated contactor relays
 Mixing valve control output:0-10V
 Battery back up:5000 hours of clock back up and up to 5 years of programme back up.
 Battery service life:>5 years
 Control operating temperature range:0°C to 40°C
 Control operating humidity range:0 to 90% RH
 Control IP rating:IP30
 Control safety construction:Class II
 Mains supply:230 VAC 50 Hz
 Conformities:EMC – 89/336/EEC, LVD – 73/23/EEC

Specifications may change without prior notice

ORDER CODES

Product Order Codes

UNI/H	Universal Heating Controller
UNI/RS	Remote Room Temperature Sensor
UNI/CS	Clamp on Sensor
UNI/EXT	External Sensor
UNI/AV	Averaging Remote Room Temperature Sensor
BW/MINI	Blue Wave - Mini Occupancy Sensor - Wall Mounting
PIR/CM	Ceiling Mounting Occupancy Sensor

“Chalmor offer heating control design, installation and commissioning services”

If you would like to find out how the Universal Heating Controller can help your organisation save energy, please call 0844 351 1199. Email info@chalmor.co.uk or visit our website www.chalmor.co.uk and order the Universal Heating Controller on line.



Chalmor

Experts in Energy Saving Lighting and Heating

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